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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

4319.70023

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on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Application Number

10/796,344

Filed

March 9, 2004

First Named Inventor

Yuichiro Ohta

Art Unit

1792

Examiner

Lund, Jeffrie Robert

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

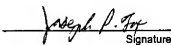
The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.☐ assignee of record of the entire interest.See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)☒ attorney or agent of record.  
Registration number 41,760☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
Signature

Joseph P. Fox

Typed or printed name

(312) 360-0080

Telephone number

March 23, 2009

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.☒ \*Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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4319.70023

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Yoichiro Ohta	)
		)
Serial No.:	10/796,344	)
		)
Conf. No.:	1978	)
		)
Filed:	3/9/2004	)
		)
For:	VACUUM PROCESSING	)
	APPARATUS	)
		)
Art Unit:	1792	)
		)
Examiner:	Lund, Jeffrie Robert	)

**Pre-Appeal Brief Request for Review**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

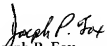
Dear Sir:

Applicant requests a pre-appeal review of the outstanding final rejections of the pending claims in this Application based upon the attached remarks.

Respectfully submitted,  
GREER, BURNS & CRAIN, LTD.

March 23, 2009  
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By

  
Joseph P. Fox  
Registration No. 41,760

## **Pre-Appeal Brief Request for Review**

### **Remarks**

An inadequate examination is demonstrated by the record of this prosecution and, in particular, unsupported misrepresentations of the motivation provided in applied prior art that can only be based upon an improper review of the applied prior art and application. No genuine factual dispute is shown in the record. Requirements of the law of obviousness are not met.

Fairness dictates that the rejections be withdrawn and the Application allowed without subjecting Applicant to the delay and expense of a full appeal.

#### **I. The Application Should be Allowed on Pre-Appeal Because the Examiner has Failed to Make a Prima Facie Case of Obviousness.**

A *prima facie* case of obviousness is established when, among other things, a suggestion to modify the reference(s) is taught by the reference(s). The Examiner has committed a clear error in examination of this Application because the motivation provided in the record is lacking in the cited prior art references. The record shows that the Examiner has inaccurately attributed a motivation to the references. Additionally, the proposed modification by the Examiner results in a vacuum processing apparatus not capable of being assembled. A misstatement related to a motivation not supported in the record and an unreasonable structural modification are clear error.

##### ***A. The Structural Modification Suggested by the Examiner Prevents Assembly of the Vacuum Processing Apparatus.***

Applicants Admitted Prior Art (hereinafter, AAPA) shows in FIG. 8 a vacuum chamber 16 connected to the vacuum pump 18. An inlet pipe 32 connects to the vacuum pump and an elbow pipe 34. A flexible pipe 36 connects the elbow pipe to a straight pipe 38 connected to the vacuum chamber. FIG. 8 shows the shrinkage of the flexible pipe at the time of evacuation. The dashed line shows the vacuum pump and the pipe when no evacuation occurs. Shrinkage of the flexible pipe results in the vacuum pump being tilted.

Applicant devised a mechanism 46 shown in FIG. 1 of the present Application for fixing the flexible pipe so as not to allow shrinkage of the flexible pipe at the time of evacuation. The mechanism includes a bar 60 that is fixed at a rising portion of the inlet pipes 32 by a chain block 62 fixed to a floor panel 50 to prevent shrinkage of the flexible pipe during evacuation.

The Examiner rejects claims 22 and 23 under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of Watanabe (JP 57-116947). In the final rejection dated December 23, 2008, on page 2, last paragraph the Examiner admits that the AAPA differs from

the present invention in that the AAPA does not teach a fixing block provided on the floor panel, a vibration transmission suppressing mechanism for maintaining a distance between the inlet pipe and the fixing block in an extending direction of the flexible pipe so as not to shrink the flexible pipe at a time of evacuation, or a the vibration transmission suppressing mechanism that is provided between the vacuum pumps. Watanabe is cited for teaching these features.

Watanabe is directed to a vibration preventing structure for a vacuum apparatus and absorbs vibrations as pendulum motion. In FIG. 1, a gimbals mechanism 5 has a first plate 6 and a second plate 7 located on upper and lower sides of the mechanism. The first plate and second plate are connected to each other by a pair of links 8a, 8b. The first plate is connected to a stand 10 by a pair of links 9a, 9b. A pump 3, accompanied by rotational movements of the movable plates 6, 7, constitutes a pendulum system capable of performing pendulum motions absorbed by the gimbals mechanism 5. (See the Abstract of Watanabe and FIGs. 4-5).

The Examiner's motivation for adding the vibration transmission suppressing mechanism of Watanabe to the apparatus of the AAPA is to prevent vibration transmission to the vacuum chamber caused by the movement of the vacuum pump. The Examiner considers it obvious of one of ordinary skill in the art to add the vibration transmission suppressing mechanism of Watanabe to the apparatus of the AAPA since KSR International Co. v. Teleflex Inc. teaches that applying a known technique to a known device ready for improvement that yields predictable results is obvious. Applicant respectfully traverses the Examiner's assertion.

In the Advisory Action dated March 11, 2009, under item 11 the Examiner indicates that the test for obviousness is not whether the features of the secondary reference may be bodily incorporated into the structure of the primary reference, nor is it that the claimed invention must be expressly suggested in any one of the references. Rather, the test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art. The Examiner further asserts that Watanabe teaches a system for preventing movement which can be readily added to the AAPA to teach the claimed invention. Applicant respectfully disagrees that Watanabe can be readily added to the AAPA. The Examiner has failed to consider how Watanabe operates vis-à-vis the AAPA. If a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious. KSR requires that rejections of obviousness not be sustained by mere conclusionary statements, but instead

there must be some articulated reasoning with some rationale underpinning the support the legal conclusion of obviousness. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. In this case, modifying the AAPA using Watanabe does not teach or suggest the present invention.

Watanabe has a vibration preventing structure that is designed to operate in a vertical direction. The links 9a, 9b are fixed to the floor 10 and extend vertically to the first plate 6. The first plate surrounds the flexible pipe. Thus, if one were to attempt to modify the AAPA then one would provide a first plate around the flexible pipe 36. However, if one were to attach the first plate in this manner, then the plate would be oriented in a horizontal direction and the pair of links 9a, 9b would not be capable of being attached to the floor. The Examiner has not provided any explanation how the links 9a, 9b could be fixed to prevent the flexible pipe 36 from shrinking. The Examiner's analysis is flawed because the flexible pipe 36 is oriented in a horizontal direction, and not a vertical direction like that shown in Watanabe. Due to the different orientation direction, the vibration preventing structure of Watanabe cannot be combined with that of the AAPA. Since Watanabe is not designed to prevent shrinkage of a flexible pipe in a horizontal direction, there is no motivation to modify the AAPA based on the teaching of Watanabe, and therefore the rejection should be withdrawn, which is respectfully requested.

*B. The Combination of the AAPA and Watanabe Fails to Disclose or Suggest a Vibration Transmission Suppression Mechanism...the Prevents Flexible Pipe Shrinkage.*

The vibration transmission suppressing mechanism of the present invention maintains the flexible pipe in a fixed position so as to not shrink the flexible pipe at a time of evacuation of the vacuum chamber. Watanabe fails to prevent shrinkage of the flexible pipe at the time of evacuation.

As shown in FIGs. 4 and 5 of Watanabe, even if the stand 10 and links 9a, 9b could be modified to attach to the AAPA, this modification would not prevent shrinkage of the flexible pipe. This is because during pendulum motion the flexible pipe shrinks. Thus, if the device of Watanabe was attached to the flexible pipe 36 of the AAPA, then the flexible pipe 36 would shrink. This is different from the present invention which has the inlet pipe 32 to prevent the flexible pipe 36 from moving. Since the combination of the AAPA and Watanabe results in shrinkage of the flexible pipe, the rejection should be withdrawn.

*C. The Examiner is Using Impermissible Hindsight to Find a Motivation for the Modification.*

It is improper in determining whether a person or ordinary skill would have led to the modifications simply to use that which the inventor taught against its teacher. The Examiner is using impermissible hindsight by restating Applicant's advantage as motivation to modify the prior art to achieve the claimed invention. The only appearance of the cited motivation to prevent any shrinkage of the flexible pipe and to modify the AAPA occurs in Applicant's Application. To use Applicant's stated advantage as a motivation to modify the prior art is clear error, and impermissible hindsight on the part of the Examiner.

The Examiner fails to show, in a clear and particular manner, that any motivation to modify is present in Watanabe. Moreover, the Examiner's statement of motivation is unsupported and has no basis in the art of record. Therefore, no *prima facie* case of obviousness has been established, and the rejection should be withdrawn.

**II. The Application Should be Allowed on Pre-Appeal Because the Examiner has Failed to Make a *Prima Facie* Case of Obviousness.**

*A. The Structural Modification Suggested by the Examiner Prevents Assembly of the Vacuum Processing Apparatus.*

On page 4, third paragraph *et seq.* of the final Office Action the Examiner asserts that Sekiguchi teaches a vacuum bellows and an exhaust line 27 between a vacuum pump 28 and a vacuum chamber 11 that contracts under vacuum pressure, and that a chain 35 can prevent movement of the bellows in a direction away from the chain. The Examiner further asserts that Elliotte teaches preventing the movement of a flexible hose 59 with a quadrangular bar 4 supporting load elements 41 with a chain 103 attached to fixing blocks. The motivation for adding the quadrangular bar, chain and box of Elliotte between and parallel to the vacuum pumps of the apparatus of the AAPA is to prevent the bellows from contracting and moving the vacuum pumps. The Examiner asserts that it is obvious under the law of KSR. Applicant respectfully traverses these statements of the Examiner because there is no motivation to modify the AAPA, contrary to the Examiner's assertions.

The deficiencies of the AAPA are noted above. Sekiguchi teaches a vertical design that is similar to that of Watanabe. In the Abstract, Sekiguchi teaches that a flange 30 moves downward by weight of a weight 36 and a cryopump 28. When a stopper 34 comes into contact with a first frame 32, the descent of the exhaust pipe 27 is checked and therefore full extension of the bellows 26 is prevented. When there is a vacuum, the exhaust pipe 27 and the

second frame 33 are pushed upward, but, a chain 35 is pulled tight, therefore the exhaust pipe 27 moves freely with a center point of the bellows 26 as a fulcrum.

The Examiner has provided no reasoning regarding how Sekiguchi could be combined with the AAPA. Applicant submits that this combination results in an inoperable structure. Sekiguchi utilizes gravity against the pipe 27. However, the pipe 36 of the AAPA is arranged horizontally. In order for the chain 35 and bellows 26 of Sekiguchi to operate with the first frame 32 and second frame 32, it is necessary that a force be applied vertically. However, once the device of Sekiguchi is horizontal no force is supplied in the direction of the chain. Since the device of Sekiguchi would not operate properly if rotated, Applicant respectfully submits that any combination of Sekiguchi with Watanabe and Elliotte results in an inoperable structure. For this reason the rejection should be withdrawn, which is respectfully requested.

*B. AAPA, Sekiguchi, and Elliotte Fails to Disclose or Suggest a Vibration Transmission Suppressing Mechanism that does not Shrink the Flexible Pipe During Evacuation.*

Sekiguchi has a chain 35 allowing the exhaust pipe 27 to move freely with a center point of the bellows 26 as a fulcrum. Accordingly, the device of Sekiguchi pivots about the bellows and the exhaust pipe pivots in a pendulum-like motion which causes the exhaust pipe to shrink. Thus, even if Sekiguchi were capable of being combined with the AAPA, this still would result in a flexible pipe that shrinks at the time of evacuation.


If Elliotte could modify the AAPA as suggested by the Examiner the combination would still not overcome Sekiguchi's deficiencies. Thus the rejection is improper since the combination of the AAPA, Sekiguchi and Elliotte fails to disclose or suggest a vibration transmission suppression mechanism that maintains a distance between the inlet pipe and the fixing block in an extending direction of the flexible pipe so as to not shrink the flexible pipe at a time of evacuation. For this additional reason, withdrawal of the is respectfully requested.

### **III. Conclusion**

Applicant asks that this pre-appeal review request be sustained, and the application allowed. As no sufficient reasons have been established, the pendency of this Application should be ended with issuance of Notice of Allowance.

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Respectfully submitted,  
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